

# Contribution of Indian Women to the National GDP

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## SUMMARY

Indian women are influencing and contributing to the Indian growth story in an increasingly meaningful way. The rising contribution of women is seen across key sectors, also implying that Indian women's gross domestic product (GDP) contribution is increasing. As there is no official (Government) estimate of women's GDP contribution and there is a lack of research on this important aspect, this report is an attempt to estimate the same. Our hypothesis is that Indian women's contribution to the GDP is over 30%. India is a hugely diverse and unorganized economy. To estimate the GDP contribution, we analyzed the changing GDP composition and the dynamics of women participation. This report estimates Indian women's GDP contribution to be 30-32%. The conclusion is based on: 1) Indian growth is increasingly led by the new age service sectors. Indian women are playing a dominant role in these faster growing sectors; 2) government policy initiatives and corporate India's increased focus on women employees are helping increased economic participation of women; 3) the official data collection methodology, especially of the unorganized sectors, could be underrepresenting the women labor force. We also conducted targeted primary research. The responses to survey questions support our hypothesis. Each of the surveyed companies is witnessing a rising share of female employees and expects the trend to continue. The increase in women participation is more notable in the faster growing services sectors. The trend of increased women participation in the service sector augurs well for the Indian growth story.

## INTRODUCTION

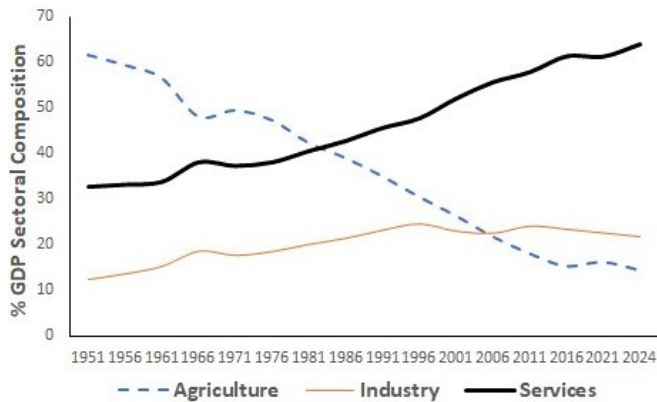
The status of women in Indian society has fluctuated significantly over prolonged periods. In ancient India, women enjoyed a high social status. Some of the ancient Indian literature (e.g. Rig Veda) provide ample evidence of equality between women and men with regards to the ability to acquire the highest knowledge (1). This deteriorated during the medieval period (500CE -1500CE) when women's role got restricted to only homemakers. After a prolonged phase of secondary social status, Indian women seem to be experiencing a march towards equality again. There has been a wide range of socio-economic developments which are catalyzing a broader change in women's roles, responsibilities, and the economic state. Women's contribution has started

to broaden from the care economy to the market economy. Some of these key socio-economic developments include improved literacy, infrastructure development and increased policy focus on gender equality (2).

While these developments have helped the supply side of the women economics equation, the demand side is getting support from the changing texture of Indian economy. The supply and demand side of women economics implies the availability and the requirement aspects of women employees. India has been one of the fastest growing economies in the world over the last three decades. Currently, it is the fifth largest economy, with the growth domestic product (GDP) estimated at USD 3.7 trillion for the fiscal year ending in March 2024 (3). The Indian GDP growth rate has trended up notably since the early 1990s. Moreover, the Indian GDP composition is evolving continuously and is getting increasingly service sector-oriented. Some of the key fast-growing sectors have been financials, information technology services, healthcare, education, hospitality, etc. (4). The service sector contribution to the Indian GDP has almost doubled over the last seven decades from nearly 30% in the 1950s to 64% currently. Contribution from the agricultural sector has reduced from over 60% to less than 20% during the same period (5), (Figure 1).

The underlying trend is that the Indian GDP is getting less dependent on Agriculture as Indian workers are shifting to relatively more remunerative opportunities in the Service and Industrial sectors (4). A slew of new service sectors has been growing at a fast rate over the last three decades after the Indian Government's liberalization reforms in the early 1990s. Complementing this trend has been India's young demography, increased pace of urbanization, and the rising trend in female participation. There is higher women participation in the services sector in India than the Industry sector, as reflected in official organized sector surveys (6) (Figure 2). We also reached out to a broad set of leading companies in the services sector to assess the trend on women participation and the outlook. These official data and our interaction with the services sector companies formed the basis of our hypothesis.

We hypothesized that Indian women contribute over 30% to the national GDP. We analyzed the data across some of the leading companies in key services sectors. Based on our research, we concluded that Indian women's contribution to the national GDP is 30 - 32%. This estimate is based on sectoral GDP contribution (Agriculture, Industry, Service) and women participation in respective sectors. We also believe that the percentage of contribution by women is likely to increase further in coming years, aided by government policy initiatives, trends in female school enrollments, increased



**Figure 1: Indian GDP - Sectoral Composition.** The long-term trend of changing sectoral composition of Indian GDP. The data is GDP composition for the fiscal year ending in March, i.e. 1951 is April 1950 – March 1951. The services sector has grown at a faster pace than agriculture and industry sectors over the last few decades (5).

formalization of the economy and increased focus on hiring women employees in corporate sectors.

## RESULTS

To estimate women’s contribution to the Indian GDP, we used the official estimates of the Indian GDP composition and combined that with our adjusted estimates on women’s proportion of sectoral labor (Table 1) (5). Our adjusted estimate of women participation in key economic segments is based on a combination of official estimates, primary research, and sampled corporate data. We estimated Indian women’s GDP contribution to be 30-32%. Besides analyzing the trends in official Female Labor Force Participation Rate (FLFPR), we also conducted a targeted primary survey of leading services sector companies.

The trend of increased FLFPR in India seems to be following a global pattern of strong correlation between rising FLFPR with higher education and increased opportunities of white-collar jobs for women (Figure 2) (7). The current increase in Indian FLFPR is coinciding with improved higher education and better availability of white-collar jobs for women, especially in service sectors (Figure 3). There is a notable trend of accelerated female school enrollments over the last three decades. Interestingly, while the school enrollment has increased for male students also, what stands out is that in higher education (tertiary schooling), female enrollment rate has outpaced that of male enrollment over the last decade (Figure 4). Our primary research also indicated the trend of rising women participation across the surveyed companies and expectations of this trend continuing.

### Primary Research on Services Sector Companies and Women Employees

We reached out to a list of 112 leading companies across key services sectors (information technology services, financials, healthcare, hospitality, retail, and aviation) with a set of questions. There were eight questions in the survey (Appendix). The response to our query on the percentage of women employee was largely in line with the official data. Almost three-fourths of companies reverted with women constituting 20-40% of employees (Figure 5). More importantly, the response indicated that each of the surveyed

companies has seen an increased proportion of women employees over the last decades and expect this trend to continue. Each company indicated having a corporate diversity policy. Seventy-seven percent of the companies have a back-to-work program for women (Figure 6). Every company is compliant on the mandatory number of women directors on the board, with over 50% companies having higher than the minimum requirement of one (Figure 7). Our interactions with company personnel also indicated management focus towards hiring, retaining, and promoting women employees. Overall, the responses to the questionnaire were in sync with our view that services sector companies have seen increased participation of women employees, and the trend is likely to continue.

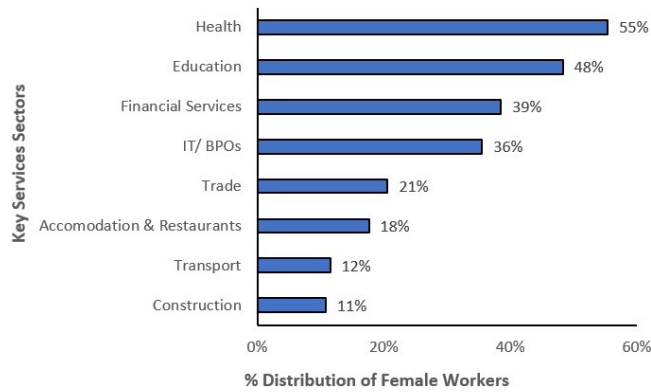
### Women’s GDP Contribution Estimate

The estimate on women’s GDP contribution is based on sectoral aggregation of the government’s official published GDP composition data and our estimates on women participation in respective sectors. The services sector constitutes the largest portion (64%) of the Indian GDP (Figure 1) (5). We estimated 31% of the workers to be women, implying that women in the services sector contribute 20% to the Indian GDP. Our estimate of 31% women participation in the services sector was premised on three main factors. First, an official survey of organized services sectors indicated 39% of workers were women (6). In addition, the official estimate of Mid and Small Enterprises (MSME) indicated 24% of the aggregate workers to be women (8). This can be assumed closer to the women workers in the unorganized sectors. The official definition of the unorganized sector is all unincorporated private sector enterprises owned by individuals or households engaged in the sale or production of goods and services operated on a proprietary or partnership basis and with less than ten total workers, as defined in the Economic Survey 2021-22. Lastly, we combined these estimates with our survey results on women participation. Our estimate of 31% is conservative given some of the larger service sectors like education and healthcare could have an even higher share of women workers in the unorganized sector, given the informal nature of these services.

We estimated women workers to constitute 20% in the industry sector. This is towards the lower end of official organized manufacturing sector estimates ranging between 19%-22% (9). The rationale for taking the lower estimate is the fact that in the industry sector, women participation in the unorganized sector is lower as the work typically tends to be more labor-intensive. The lower estimate is also premised on sampled corporate data and anecdotal evidence. In India,

	GDP Composition (%)	Estimated Women proportion	Women's GDP Contribution Estimate (%)
Agriculture	18	43%	8
Industry	19	20%	4
Services	64	31%	20
<b>Total</b>	<b>100</b>		<b>31</b>

**Table 1: Sectoral GDP composition and Women’s contribution.** Indian GDP sectoral composition and the proportion of women employees in those sectors. Women’s GDP contribution is a proportionate-derived number based on GDP composition and share of women estimated employees in respective sectors.



**Figure 2: Percentage distribution of female workers in key services sectors.** The women employee proportion as per the official Quarterly Enterprise Survey (QES). The chart indicates that females constitute a meaningful proportion of total workers in some of the larger service sectors like healthcare, education, financials, and information technology. In the healthcare sector, there are more female employees than male (6).

sectors/industries tend to have a primary influence on female participation. Hospitals (irrespective of the size) have over 50% women employees, whereas Utilities/Mining companies have only about 10%. The intra-sector variations tend to be relatively limited. Additionally, larger manufacturing firms have relatively higher extent of automation and women employees versus smaller firms in the same industry. A marginally lower estimate than official proportion of women participation for the industry accounts for this broader pattern. The industry sector constitutes 19% of the GDP and 20% of its workers are women, implying women in the industry sector contribute 4% to the national GDP.

In the agriculture sector, our estimated women workers are the same as the official estimate of 43%. The agriculture sector contributes 19% of the Indian GDP. Therefore, women in the agriculture sector contribute 8% to Indian GDP (**Table 1**). Combining the three key sectors results in aggregate women contribution to be 31% of the national GDP.

### Gender Pay Gap Presents an Upside Risk to Our Estimates

We believe gender pay gap creates an upside risk to our GDP contribution estimate. In our calculations, we have assumed the same value added by female workers as male workers. As GDP calculation aims to aggregate the economy's value addition, a lower cost implies higher GDP contribution. We also believe that with increased corporate focus on diversity, it is likely that the gender pay gap in faster growing new age services sector companies would not be as substantial as it is there for casual workers. Official survey of casual labor (temporary, project specific workers) indicates female workers pay to be 33% lower (10).

Overall, our view is that with rising women participation led by the service sector, combined with a certain degree of gender pay gap, Indian women are contributing over 30% of Indian GDP and we expect this contribution pie to increase over coming decades.

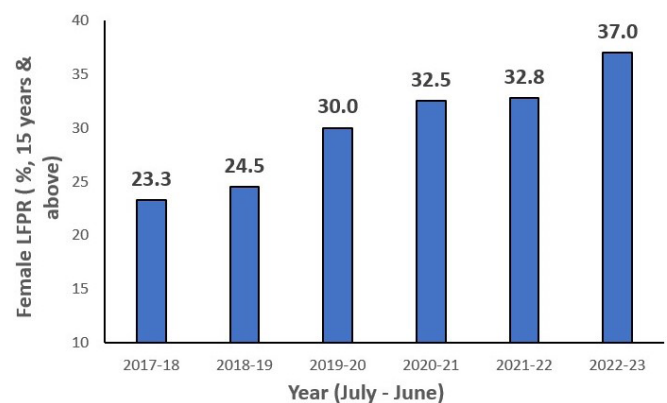
### DISCUSSION

Our conclusion that Indian women contribute over 30 – 32% to the GDP should be seen in the context of India being

largely a patriarchal society for centuries. Women were primarily responsible for the household chores and taking care of children and elderly family members (1). This started to change a few decades ago. There has been a wide range of supportive developments in the demand and the supply side dynamics, resulting in an increased FLFPR, and we believe that the upward trend is likely to continue. India's current situation seems to be fulfilling both the criteria of the virtuous cycle as highlighted in a research paper arguing economic development and policy actions leading to reduced gender inequality, which in turn feeds into women empowerment and further economic growth, resulting in a virtuous cycle (11).

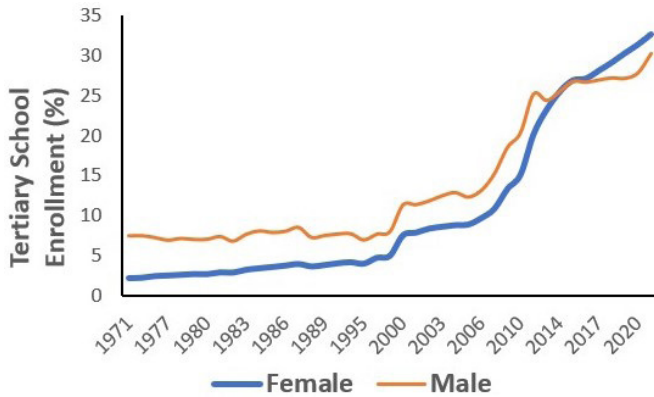
Some of the key supply-side dynamics helping increased FLFPR are improved gender equality, supportive regulatory environment, improved public infrastructure, and improvement in literacy rates. India is a diverse country with varying degrees of gender equality across different states, religions, and castes. There has, however, been a significant improvement in gender equality over the last few decades. On the global Gender Inequality Index (GII), India's rank has improved consistently. A value of zero indicates an equality between men and women. The GI value was 0.72 in 1990 and has reduced to 0.44 as per the latest United Nations Development Program (UNDP) survey in 2022 (12). Government policies are increasingly supportive of improved gender equality. In the latest 18th Lok Sabha (Lower House of Indian Parliament, 2024 general election), there were 74 women MPs elected (13.6%), which appears low compared to population representation, but the long-term trend has been upwards. In the first Lok Sabha election in 1952, only 24 MPs (4.9%) were women. To encourage further participation, Indian legislatures have recently approved the Women's Reservation Bill, which reserves one third of the seats in the Parliament and State Assembly for women. A higher number of women representatives in the legislative body would also ensure further boost to laws supportive of improved gender equality.

On the demand side, developments like accelerating pace of urbanization, faster growth in knowledge-based service industry, and increasing number of women employees hired in the corporate sector have aided increased women



**Figure 3: India Female Labor Force Participation rates.** Annual Female Labor Force Participation Rates (FLFPR) for the age group 15 years and above. The data is for a period of 12 months ending in June. The trend indicates a consistently rising female participation over the last six years. Source of this data is Periodic Labour Force Survey – Annual Report (10).





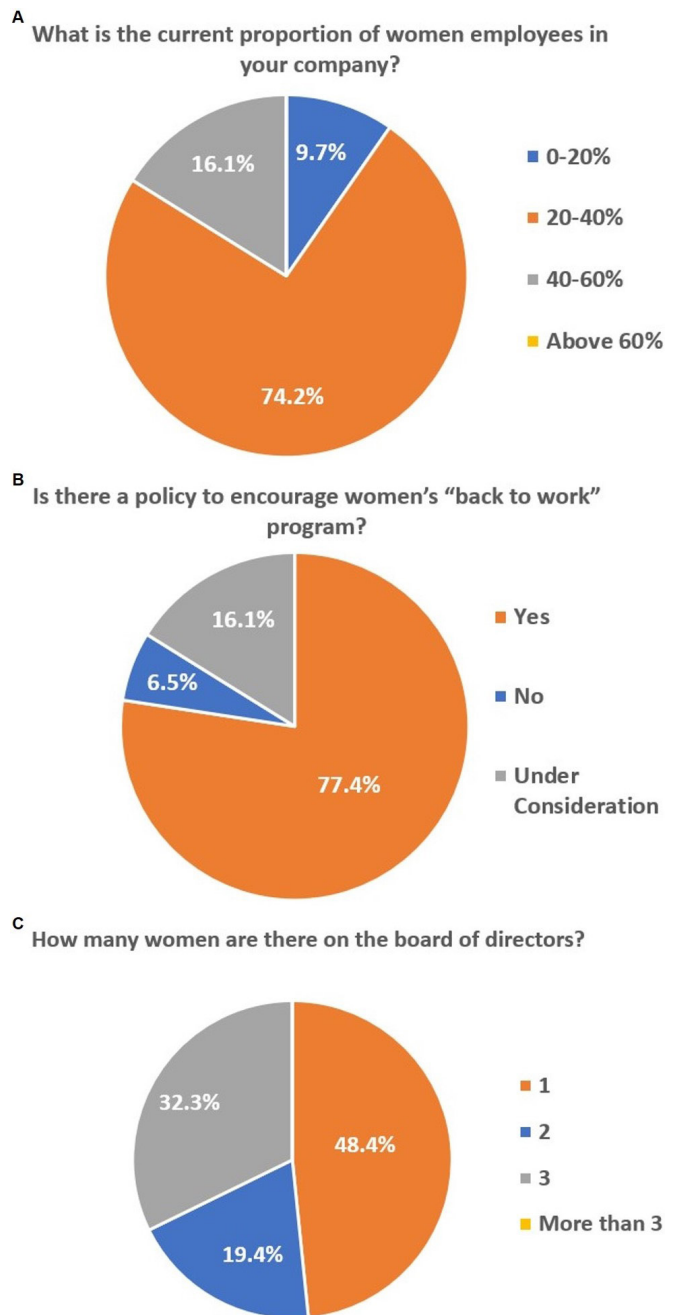
**Figure 4: Tertiary school enrollment.** Relative trend on male and female tertiary school enrollment. Tertiary schooling in India is higher education, post 12 years of primary and secondary education (student age group of 18-23 years old) (13).

participation in economic growth. Urbanization is progressing at a fast pace in India and the pace has accelerated over recent years. In 1960, only 18% of the Indian population lived in urban areas, which has more than doubled to 36% in 2022 (13). This trend is expected to continue in coming decades. The United Nations estimates that by 2050, over 50% of the Indian population will live in urban areas. The Indian growth story is led by private companies in knowledge-based services sectors. Government policy initiatives, improved literacy, and the increased demand for knowledge workers are all aiding increased proportion of women employees in services sector companies. Indian companies, across sectors, have seen an increased share of women participation. This trend is reflected in the official survey for the organized sector as well as in our survey.

Increased women participation in organized sectors has been a notable trend in India over the last three decades. Since the early 1990s, there has been an acceleration in the organized private sector growth momentum. This acceleration is more pronounced in some of the urbanization and globalization beneficiary sectors (14). India has witnessed a rapid development of some of the largest metro cities over the last three decades. These are densely populated thriving business centers. Sectors like commercial real estate, retail, hospitality, aviation, and healthcare are all integral parts of the urban ecosystem. Most of these new service sectors in India have a relatively high proportion of women employees. The official Quarterly Employment Survey (QES) data for the organized sector reflect the fact that in some of the larger services sectors, women constitute a meaningful percentage of total employees. Healthcare, education, and financials sectors have over 40% female employees (Figure 2). The healthcare sector also stands out as the only sector with more than 50% women employees.

Among other key sectors, IT services is one of the newest and largest organized services sectors in India. As per a recent National Association of Software and Service Companies (NASSCOM) industry report, the IT sector employs 5.4 million people, with women constituting over 35%. This relatively new service sector accounts for a meaningful 7.5% of Indian GDP over the fiscal year Apr 2022-Mar 2023 (15). The Indian financials sector is one of the larger services sectors. The sector has seen robust growth since the liberalization in early

1990s. Currently, there are 21 private banks and 12 Small Finance Banks, besides 46 foreign banks. Indian private banks started operation only post-liberalization. The non-banking financial companies (NBFCs), including insurance



**Figure 5: Results from survey questions.** A) Proportion of women employees. The corporate response distribution to our question on proportion of women employees. As many as three-fourths of the surveyed companies have 20-40% women employees. B) Women's back-to-work program. The corporate response distribution to our question on women's back-to-work program. Seventy-seven percent of the surveyed companies have a defined back-to-work program for women. C) How many women on the board of directors? The corporate response distribution to our question on the number of women directors on the board. Mandatory requirement is to have at least one woman on the board of directors. Over 50% of the companies had more than the mandatory requirement.

companies, have also seen a strong growth momentum over the last three decades. The financial sector also has high women participation (**Figure 2**).

To conclude, there have been quite a few supportive developments in the demand and supply side dynamics enabling increased women participation in the overall work force. The improving demand and supply side dynamics of women participation seems to have entered a virtuous cycle and is beginning to materially impact the economic contribution equation.

## MATERIALS AND METHODS

We divided our investigation into three parts: understanding the GDP calculation methodology, estimating the women participation across key economic sectors, and finally, linking the two. The key constraint in accurately measuring Indian women's economic contribution is that India is largely an unorganized economy and women participation is not getting accounted for appropriately.

### GDP Calculation Methodology

We started our estimate calculation with understanding the details of Indian GDP composition. The Indian GDP and its calculation have a few key callouts. As per the official estimates, over 80% of employment is in the unorganized sector and this segment adds around half of the GDP (10). The Indian GDP is calculated by the NSO (National Statistical Organization). The NSO calculates GDP of organized and unorganized sectors separately, applying the relevant methodologies. The GDP of the organized sector in India is calculated using the "Production-based Approach". Whereas, the GDP of the unorganized sector is estimated using the "Labor Input Method." For the organized sector, we have the official sectoral information of women employment (**Figure 2**) (6). To get a better understanding of corporate thinking and the outlook on women participation going forward, we conducted targeted primary research.

### Estimating the Women Participation Across Sectors

To assess the trend of women participation in the organized sectors, we reached out to a list of leading companies across key fast growing service sectors. We sent out a set of eight questions in a Google Form format to companies (112 received the survey, 31 responded, number of employees in companies responded - 2.8 million). The survey was sent to the Chiefs of Human Resources or in select cases the Chief Diversity Officers. The questions focused on the current percentage of women employees, the trend on women employees' proportion, the diversity policy, back-to-work program for women employees, number of women directors, etc. (Questions in the **Appendix**).

India has a large unorganized sector. The employment data for this segment is dependent on surveys. The accuracy of the survey is a function of categories defined while collecting and collating the data. The employment survey conducted by National Sample Survey Office (NSSO) has some degree of subjectivity involved in defining women workers. The Economic Survey document (FY 2022-23) highlights the fact that use of overly broad classification could be reducing the FLFPR. They estimate the adjusted FLFPR to be 46.2% compared to the official estimate of 32.5%. The economic survey analysis also underlines the fact that the

official data on women employees needs to be adjusted upward to get a more accurate picture on women's economic contribution (16). Incorporating these ground realities, we adjusted our estimates on women participation to conclude the final estimate on women's contribution in Indian GDP.

### Linking Women Participation to GDP Contribution

Our estimate on women's GDP contribution is based on proportionate value added per worker in key sectors. Our combined adjusted estimates on women participation, considering the organized and the unorganized segments, in services, industry and agriculture are 31%, 20%, and 43%, respectively. The latest GDP data for FY24 indicate sectoral composition of services, industry and agriculture to be 64%, 19%, and 18%, respectively. Combining this composition with women participation rates, results in aggregate women's contribution to GDP at 31% (**Table 1**). The largest share of women's GDP contribution is of the Services sectors at 20%.

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## APPENDIX

The list of survey questions:

Q1) What is the current proportion of women employees in your company?

- a. 0-20%
- b. 20-40%
- c. 40-60%
- d. Above 60%

Q2) Has the proportion increased over the past 10 years?

- a. Yes
- b. No
- c. Can't say

Q3) Do you think the proportion is likely to increase in the coming years?

- a. Yes
- b. No
- c. Can't say

Q4) Is there a defined diversity policy in the company?

- a. Yes
- b. No
- c. Under consideration

Q5) Has there been any targeted program to improve women retention? If yes, kindly share the details.

Q6) Is there a policy to encourage women's "back to work" program?

- a. Yes
- b. No
- c. Under consideration

Q7) How many women are there on the board of directors?

- a. 1
- b. 2
- c. 3
- d. More than 3

Q8) Are there specific functionality/departments where women employees are preferred? If yes, kindly share the details.